

Amendment and Response

Serial No.: 09/934,450

Confirmation No.: 7329

Filed: August 21, 2001

For: STRETCH REMOVABLE ADHESIVE ARTICLES AND METHODS

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Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1. (Original) A method of removing a medical article from skin, the method comprising:
providing a medical article adhered to skin, wherein the medical article comprises a
backing and a stretch removable pressure sensitive adhesive layer disposed thereon; and
stretching the medical article in an amount sufficient to delaminate the adhesive layer
from the backing and remove the medical article from the skin.
2. (Original) The method of claim 1 wherein stretching the medical article comprises
stretching it in a direction substantially parallel to the plane of the skin to which it is adhered.
3. (Original) The method of claim 1 wherein the backing and the adhesive layer are selected
such that the stretchability of the adhesive layer is greater than that of the backing under the same
tension.
4. (Original) The method of claim 3 wherein the stretchability at break of the adhesive layer
is at least about 300%.
5. (Original) The method of claim 4 wherein the stretchability at break of the adhesive layer
is no greater than about 800%.
6. (Original) The method of claim 3 wherein the stretchability at break of the adhesive layer
is at least about 10% greater than that of the backing.

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7. (Original) The method of claim 1 wherein the adhesive layer comprises a poly(meth)acrylate.
8. (Original) The method of claim 1 wherein the adhesive layer comprises a reinforced adhesive.
9. (Original) The method of claim 8 wherein the adhesive layer comprises a fibrous reinforcing material.
10. (Original) The method of claim 9 wherein the adhesive layer comprises:
a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength.
11. (Original) The method of claim 10 wherein the pressure sensitive adhesive matrix comprises a polymer derived from at least one alkyl ester monomer selected from isooctyl acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate, and at least one co-monomer selected from acrylic acid and acrylamide.
12. (Original) The method of claim 1 wherein the adhesive layer comprises an A-B-A block copolymer.
13. (Original) The method of claim 1 wherein the medical article is in the form of a wound dressing, surgical dressing, medical tape, athletic tape, or surgical drape.

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14. (Original) The method of claim 1 wherein the medical article is in the form of a sensor, an electrode, or an ostomy appliance.

15. (Original) A method of removing a medical article from skin, the method comprising:
providing a medical article adhered to skin, wherein the medical article comprises a backing and a stretch removable pressure sensitive adhesive layer disposed thereon;
wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension;
wherein the stretch removable pressure sensitive adhesive layer comprises:
a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
and further wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength; and

stretching the medical article in an amount sufficient to delaminate the adhesive layer from the backing and remove the medical article from the skin.

16. (Original) A method of removing a medical article from skin, the method comprising:
providing a medical article adhered to skin, wherein the medical article comprises a backing and a stretch removable pressure sensitive adhesive layer disposed thereon;
wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension;
wherein the stretch removable pressure sensitive adhesive layer comprises:
a pressure sensitive adhesive matrix comprising a polymer derived from at least one alkyl ester monomer selected from isooctyl acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate; and at least one co-monomer selected from acrylic acid and acrylamide; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;

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and further wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength; and

stretching the medical article in a direction relative to the skin to which it is adhered sufficient to delaminate the adhesive layer from the backing and remove the medical article from the skin.

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17. (Original) A medical article comprising a backing and a stretch removable pressure sensitive adhesive layer disposed thereon, wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension and the adhesive layer and backing delaminate when removed from skin.

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18. (Original) The medical article of claim 17 wherein the stretchability at break of the adhesive layer is at least about 300%.

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19. (Original) The medical article of claim 17 wherein the stretchability at break of the adhesive layer is at least about 10% greater than that of the backing.

24 *24*
20. (Original) The medical article of claim 17 wherein the adhesive layer and backing form separate phases.

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21. (Original) The medical article of claim 17 wherein the adhesive layer comprises a poly(meth)acrylate.

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22. (Original) The medical article of claim 17 wherein the adhesive layer comprises a fibrous reinforcing material.

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~~23.~~ (Original) The medical article of claim ²⁶~~22~~ wherein the adhesive layer comprises:
a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
wherein the adhesive layer has a yield strength and a tensile strength, and wherein the
tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength.

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~~24.~~ (Original) The medical article of claim ²⁷~~23~~ wherein the pressure sensitive adhesive matrix
comprises a polymer derived from at least one alkyl ester monomer selected from isooctyl
acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate, and at least one co-monomer selected from
acrylic acid and acrylamide.

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~~25.~~ (Original) The medical article of claim 17 wherein the adhesive layer comprises an A-B-
A block copolymer.

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~~26.~~ (Original) The medical article of claim 17 wherein the backing comprises melt blown
fibers.

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~~27.~~ (Original) The medical article of claim 17 which is in the form of a wound dressing,
surgical dressing, medical tape, athletic tape, or surgical drape.

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~~28.~~ (Original) The medical article of claim 17 which is in the form of a sensor, an electrode,
or an ostomy appliance.

29. (Original) A method of making a medical article, the method comprising:
providing a backing;

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selecting a stretch removable pressure sensitive adhesive layer such that the stretchability of the adhesive layer disposed on the backing is greater than that of the backing under the same tension; and

laminating the backing and the pressure sensitive adhesive layer together under conditions of temperature and pressure that allow the adhesive layer and backing to delaminate when removed from skin.

B1 30. (Original) A stretch removable adhesive article comprising a backing with a predefined tab and a pressure sensitive adhesive layer disposed on a major surface of the backing opposite that of the tab, wherein the predefined tab is located in a central portion of the backing.

31. (Original) The article of claim 30 wherein the pressure sensitive adhesive is a stretch removable pressure sensitive adhesive.

32. (Original) The article of claim 30 wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension.

33. (Original) The article of claim 32 wherein the stretchability at break of the adhesive layer is at least about 300%.

34. (Original) The article of claim 32 wherein the stretchability at break of the adhesive layer is no greater than about 800%.

35. (Original) The article of claim 32 wherein the stretchability at break of the adhesive layer is at least about 10% greater than that of the backing.

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36. (Original) The article of claim 30 wherein the adhesive layer comprises a poly(meth)acrylate.
37. (Original) The article of claim 30 wherein the adhesive layer comprises a reinforced adhesive.
38. (Original) The article of claim 37 wherein the adhesive layer comprises a fibrous reinforcing material.
- B1 39. (Original) The article of claim 38 wherein the adhesive layer comprises:
a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength.
40. (Original) The article of claim 39 wherein the pressure sensitive adhesive matrix comprises a polymer derived from at least one alkyl ester monomer selected from isooctyl acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate, and at least one co-monomer selected from acrylic acid and acrylamide.
41. (Original) The article of claim 30 wherein the adhesive layer comprises an A-B-A block copolymer.
42. (Original) The article of claim 30 wherein the tab comprises a portion of the backing and portion of the adhesive layer.
43. (Original) The article of claim 30 wherein the backing comprises two pieces.
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44. (Original) The article of claim 43 wherein the two backing pieces overlap.
45. (Original) The article of claim 43 wherein each backing piece comprises an end free of exposed adhesive, and further wherein the ends free of exposed adhesive form the predefined tabs.
46. (Original) The article of claim 30 which is a medical article.
- B1 47. (Original) The article of claim 46 which is in the form of a wound dressing, surgical dressing, medical tape, athletic tape, or surgical drape.
48. (Original) The article of claim 46 which is in the form of a sensor, an electrode, or an ostomy appliance.
49. (Original) A stretch removable adhesive article comprising a backing with a predefined tab and a stretch removable pressure sensitive adhesive layer disposed thereon, wherein the predefined tab is located in a central portion of the backing, and further wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension.
50. (Original) A stretch removable adhesive article comprising a backing with a predefined tab and a stretch removable pressure sensitive adhesive layer disposed thereon, wherein:
the predefined tab is located in a central portion of the backing;
the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension; and
the adhesive layer comprises:
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a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength.

B.1. 51. (Original) A method of removing an article from a surface, the method comprising:
providing a stretch removable adhesive article adhered to a surface, wherein the article comprises a backing with a predefined tab and a pressure sensitive adhesive layer disposed thereon, wherein the predefined tab is located in a central portion of the backing; and
pulling on the tab to stretch the adhesive article in an amount sufficient to remove the article from the surface.

52. (Original) The method of claim 51 wherein the pressure sensitive adhesive is a stretch removable pressure sensitive adhesive.

53. (Original) The method of claim 51 wherein the backing and the adhesive layer are selected such that the stretchability of the adhesive layer is greater than that of the backing under the same tension.

54. (Original) The method of claim 53 wherein the stretchability at break of the adhesive layer is at least about 300%.

55. (Original) The method of claim 53 wherein the stretchability at break of the adhesive layer is at least about 10% greater than that of the backing.

56. (Original) The method of claim 51 wherein the adhesive layer comprises a poly(meth)acrylate.

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57. (Original) The method of claim 51 wherein the adhesive layer comprises a reinforced adhesive.

58. (Original) The method of claim 57 wherein the adhesive layer comprises:
a pressure sensitive adhesive matrix; and
a fibrous reinforcing material within the pressure sensitive adhesive matrix;
wherein the adhesive layer has a yield strength and a tensile strength, and wherein the tensile strength is about 0.7 MPa or greater, and at least about 150% of the yield strength.

59. (Original) The method of claim 58 wherein the pressure sensitive adhesive matrix comprises a polymer derived from at least one alkyl ester monomer selected from isooctyl acrylate, 2-ethyl-hexyl acrylate, and n-butyl acrylate, and at least one co-monomer selected from acrylic acid and acrylamide.

60. (Original) The method of claim 51 wherein the adhesive layer comprises an A-B-A block copolymer.

61. (Original) The method of claim 51 wherein the tab comprises a portion of the backing and portion of the adhesive layer.

62. (Original) The method of claim 51 wherein the backing comprises two pieces.

63. (Original) The method of claim 62 wherein the two backing pieces overlap.

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64. (Original) The method of claim 62 wherein each backing piece comprises an end free of exposed adhesive, and further wherein the ends free of exposed adhesive form the predefined tabs.
65. (Original) The method of claim 51 wherein the article is a medical article.
66. (Original) The method of claim 65 wherein the medical article is in the form of a wound dressing, surgical dressing, medical tape, athletic tape, or surgical drape.
67. (Original) The method of claim 65 wherein the medical article is in the form of a sensor, an electrode, or an ostomy appliance.
68. (Original) A method of making a medical article, the method comprising:
providing a backing with a predefined tab located in a central portion of the backing; and
applying a stretch removable pressure sensitive adhesive to a major surface of the backing opposite that of the predefined tab.
69. (Original) A method of removing an article from a surface, the method comprising:
providing a stretch removable adhesive article adhered to a surface, wherein the article comprises a backing with a predefined tab and a pressure sensitive adhesive layer disposed thereon, wherein the predefined tab is located in a central portion of the backing; and
pulling on the tab along a direction that is normal to the surface to stretch the adhesive article in an amount sufficient to remove the article from the surface.
70. (Currently Amended) A method of removing an article from a surface, the method comprising:

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providing a stretch removable adhesive article adhered to a surface, wherein the article comprises a backing and a pressure sensitive adhesive layer disposed thereon; [[and]]

rotating a portion of the article to a nearly perpendicular orientation from its starting position; and

pulling on the rotated portion of the article along a direction that is not normal to the surface to stretch the adhesive article in an amount sufficient to remove the article from the surface.

71. (Original) The method of claim 70 wherein the direction forms an angle of about 20 degrees or more off of normal.

72. (Currently Amended) The method of claim 70 wherein the backing comprises a predefined tab and pulling on the rotated portion of the article comprises pulling on the predefined tab.

73. (Original) The method of claim 72 wherein the predefined tab is located in a central portion of the backing.

74. (Cancelled)

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75. (New) The method of claim 70 wherein the article is a wound dressing.

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76. (New) The method of claim 70 wherein the surface is skin.

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77. (New) A method of removing an article from a surface, the method comprising; providing a stretch removable adhesive article adhered to a surface, wherein the article

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has a center axis and comprises a backing having a plane and a pressure sensitive adhesive layer disposed on the backing;

grasping an edge portion at the center of the article so that the plane of the backing stays substantially parallel to the plane of the surface; and

pulling on the edge portion of the article along a direction that is substantially perpendicular to the center axis of the article and along the plane of the surface to stretch the article in an amount sufficient to remove the article from the surface.

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~~78.~~ (New) The method of claim ⁷⁴~~77~~ wherein the article is a wound dressing.

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~~79.~~ (New) The method of claim ⁷⁶~~77~~ wherein the surface is skin.

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